

REMARKS

Claims 1, 2 and 9 have been amended. Claims 1-13 remain pending for reexamination.

Priority

Applicants appreciate the Examiner's acknowledgment of the claim for priority and receipt of the priority document.

35 U.S.C. §103

Claims 1-13 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Bhattacharjya et al, U.S. Patent No. 5,963,714, in view of Barry et al, U.S. Patent No. 5,745,657. The Examiner cites Bhattacharjya for disclosing a color printing apparatus for printing by mixing a plurality of primary colors including a print driver for receiving a print instruction of print data issued from an application program, and for rasterizing the print data to produce con-tone/multi-bitmap data and bi-tone/single-bit bitmap data. However, Applicants respectfully traverse this interpretation of the reference.

Bhattacharjya relates to quantitizing continuous tone values of cyan and magenta (c and m) into respective two bit

values wherein each bit is used to control a different colored ink, such as a dark cyan/magenta and a lighter photo cyan/magenta. Then, separate continuous tone values are generated for the dark and light inks of the same color and these are subjected to halftoning separately. See column 6, lines 24-39 of the reference. The mapping function that is used then varies depending on the mix of light and dark cyan/magenta inks that is best for the particular printer and print medium, according to Bhattacharjya.

In the present invention, both the con-tone/multi-bits bitmap data and the bi-tone/single-bit bitmap data are stored into a page memory independently. The con-tone/multi-bits bitmap data is converted into con-tone/multi-bits print data and the bi-tone/single-bit bitmap data is converted into bi-tone/single-bit print data. The respective print data is logically synthesized to be output to a color printing unit, as set forth in claim 1. As one example of an advantage of the invention, it is unnecessary to mix the black color of a black line image or character that is located in a color image area with the primary colors and therefore the print quality is enhanced. Also, the quantity of print data can be reduced

thereby enhancing the printing performance. See page 5, lines 6-11 and page 6, lines 25-29 of the specification, for example.

As set forth in independent claim 9, output means separately outputs the bi-tone/single-bit print data and con-tone/multi-bits print data, and the color printing apparatus has a page memory for separately storing the entered bi-tone/single-bit print data and the entered con-tone/multi-bits print data in a bitmap data format. Further, claim 9 includes that the bitmap data is read from said page memory in the unit of the primary color to print out the read bitmap data.

Barry relates to a mapping system in which a high resolution image defines the edge or boundary between two images when mapped into the output image plane and only the data associated with the portion of the image in the output image plane is stored and transferred to a print engine. The print engine determines which pixels are to be sent to the associated marking engine, with an arbitrator that operates to select the information from the image that is to be mapped onto the output image. Accordingly, the combination of Bhattacharjya and Barry does not disclose the color printing

apparatus and system of the present invention. Therefore, the 35 U.S.C. §103(a) rejection should be withdrawn.

Conclusion

In view of the foregoing amendments and remarks, Applicants contend that the above-identified application is now in condition for allowance. Accordingly, reconsideration and reexamination is requested.

Respectfully submitted,



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